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Overview General Commercial Models

This appendix contains descriptions of the general commercial models. The purpose of the descriptions is to assist the user in determining if adjustments are applicable to account for variations between the subject improvement and the model selected to compute its replacement cost new. Photographs are also included to assist the user in classifying subject improvements.

The purpose of the models is to facilitate the user in estimating the replacement cost new of subject improvements as of the effective valuation date to serve as the starting point in the application of the cost approach to value for ad valorem tax purposes. The system is designed to accommodate the assessment process. The test of the assessor's estimate of replacement cost is not contingent upon the valuation of any one construction component but rather in its approximation to the actual construction cost of the subject improvement.

The models, based upon occupancy type, are divided into three major categories:

- General Commercial Mercantile (GCM)
- General Commercial Industrial (GCI)
- General Commercial Residential (GCR)

Note: The fourth model, General Commercial Kit (GCK) is not based upon occupancy type and therefore the following information is not relevant to it use:

The foundation, framing and basic shell construction are category-specific, with floor and roof loads, doors, fenestration and store fronts typical of the occupancy. Floor heights, interior finish and mechanical features are model-specific. The following construction specifications are formatted accordingly with the basic shell components applicable to all the models within the category presented first and followed by the specifications applicable to each individual occupancy model. The following applies:

- (1) The valuation models were developed by the application of the Segregated Cost and Unit-in-Place Cost Section of the Marshall Valuation Service.
- (2) All components reflect the average cost of materials and workmanship unless otherwise specified
- (3) All model designs are plain and void of architectural treatment. Any allowance for additional costs associated with wall cuts, roof breaks, split elevations and other such design features are not built into any of the models and must be considered in the design classification assigned to the subject.
- (4) The General Commercial Residential (GCR) models are only applicable to wood or metal stud framed load bearing construction, regardless of story height. Masonry construction requires the application of either GCM or GCI models.

- (5) Floor height is model-specific and represent floor-to-floor or roof-to-roof heights herein defined as the vertical distance from the top of the floor to either the top of the next upper floor or to the eave of the roof, to the nearest one foot. Note that in the case of single pitched (shed type) roofs, the distance is measured to the lowest eave line. Variations in the roof pitch must be considered in the design classification assigned to the subject.
- (6) Dock floor additives are applicable to GCI and certain specified GCM models to account for variations in grade-to-ground floor height herein defined as the average vertical distance from finished grade to the top of the ground floor, to the nearest one foot.
- (7) Interior finish cost coefficients are itemized in Schedule C and are user modifiable by application of the Unit Cost Adjustments provided in Schedule C. Note that the cost component for partitions includes built-in features typical of the occupancy.
- (8) Division walls, herein are defined as any interior wall which serves to divide an area into private individually useable (rentable) units, are not included in any of the models except apartments, motels and hotels for which division walls are accounted for in the additives for unit finish. The cost for partitions itemized in Schedule C does not include an allowance for division walls.
- (9) The Stand Alone Basement model is applicable to either basement extensions projecting beyond the upper floor perimeter walls or an underground (basement-like) structure standing alone without an upper floor. The difference between this model and a basement under an upper floor is the inclusion of the ground slab, and foundation walls and footer otherwise included in the first floor model. Caution should be exercised to assure that the structural floor slab is not duplicated as a yard improvement such as paving.
- (10) Access stairs typical of the occupancy are included in all basement and upper floor models.

General Commercial Mercantile Models

This section describes the general commercial mercantile models (GCM).

GCM Basic Shell Components

Site Preparation	Typical grading for a level site applicable to the ground floor area; bulk excavation applicable to basement area.
Foundation	
Wall types-1, 2, and 4	Concrete grade walls on concrete spread footings to support load bearing construction; concrete column footings and grade beams to support framed construction, perimeter insulation.
Frame	
Type-1	Wood and/or timber beams and columns; interior wood or steel floor and/or roof supports.
Type-2	Steel beams and columns; steel pipe floor and/or roof supports.
Type-3	Reinforced concrete beams and columns.
Type-4	Fire-proofed steel beams and columns.
Exterior Walls	
Type-1 Basement	Concrete block, waterproofing, insulation at finished areas.
Type-2 Basement	Concrete, waterproofing, insulation at finished areas.
Type-1 Upper	8" concrete block curtain walls; 12" load bearing concrete block walls; painted exterior; Tilt-up panels, 5"- 6", gray; add for each 2" of additional thickness; add for textured finishes
Type-2 Upper	8" brick on concrete block back-up curtain walls; 12" brick on concrete block back-up load bearing walls.
Type-4 Upper	4' concrete panel guard walls 2'6" high.
Ground Floor	Concrete slab with wire mesh reinforcing at grade level, vapor barrier.
Structural Floors	
Type-1 Frame	Wood sub-floor on wood joists.
Type-2 Frame	Concrete on corrugated metal deck and steel joists.

Type-3 Frame	Concrete slab and joists.
Type-4 Frame	Concrete slab on steel joists.
Roof Structure	
Type-1 Frame	Flat roof, wood or composition deck on wood joists.
Type-2 Frame	Flat roof, steel deck on steel joists.
Type-3 Frame	Flat roof, concrete slab on concrete joists.
Type-4 Frame	Flat roof, steel deck on steel joists.
Roofing	Composition roofing, insulation
Interior Finish	See Occupancy Model - specific Components
Mechanical Features	See Occupancy Model - specific Components

MODEL	GCM Apartments
Floor Height	10'
Finish Type	Finished divided, 8' ceiling height

Interior Finish and Mechanical Features	
Walls	Two coats of paint on drywall, wood or metal furring
Flooring	30% vinyl composition tile; 65% carpet and pad; 5% ceramic tile
Ceiling	Taped and painted drywall on wood ceiling joists or metal channel supports
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of apartments.
HVAC	Heating only
Heating Only	Gas fired forced air
Cooling Additive	Add for air conditioning for one unit only from the Schedule C “Add for A.C.” column. Air conditioning in multiple units is valued using the unit finish adjustment.
Plumbing	Not included. Plumbing is valued with the application of the unit finish adjustment.

Notes	Kitchen built-ins, plumbing and air conditioning are included by the application of the unit finish adjustment
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MODEL	GCM Auto Service
Floor Height	14'
Finish Type	Semi-finished , 14' floor height

Interior Finish and Mechanical Features

Walls	Masonry paint, two coats
Flooring	10% vinyl composite tile; 90% concrete hardener
Ceiling	10% suspended mineral fiber acoustical tile; 90% paint on underside of roof structure
Partitions	Masonry partitions
Lighting	Average cost installation typical of auto service centers
Heating Only	Suspended gas fired radiant heaters
Cooling Additive	Package units
Plumbing	Bibs and drains
Notes	10% office and toilet room area

MODEL	GCM Auto Showroom
Floor Height	14'
Finish Type	Finished open, 12' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on metal furring
Flooring	Vinyl tile
Ceiling	Acoustical tile on ceiling structure
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of finished open auto showrooms

HVAC	Zoned air conditioning warm and cooled air
Heating Only	Forced air.
Cooling Additive	N/A
Plumbing	Not included
Notes	Exterior walls include expansive plate glass windows typical of the

MODEL	GCM Bank
Floor Height	14'
Finish Type	Finished divided, 12' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood or metal furring
Flooring	95% carpet and pad; 5% terrazzo or equal
Ceiling	Suspended acoustical tile
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM Bowling Alley
Floor Height	14'
Finish Type	Finished open, 12' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on metal furring
Flooring	10% vinyl tile; 15% carpet and pad; 75% unfinished lane areas
Ceiling	95% suspended acoustical tile

Partitions	Wood frame interior construction typical of bowling alleys
Lighting	Low to average cost installation typical of bowling alleys
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM Car Wash (Automatic)
Floor Height	12'
Finish Type	Semi-finished, 12' floor height

Interior Finish and Mechanical Features

Walls	Paint on masonry
Flooring	Unfinished
Ceiling	Unfinished
Partitions	Masonry partitions
Lighting	Average cost installation typical of occupancy
HVAC	Heating only
Heating Only	Space heaters with fan
Cooling Additive	N/A
Plumbing	Bibs and drains

MODEL	GCM Convenience Market
Floor Height	12'
Finish Type	Finished open, 10' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood or metal furring, 10% painted masonry
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Flooring	90% vinyl tile, 10% unfinished
Ceiling	90% suspended acoustical tile, 10% unfinished
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included
Notes	10% of area is unfinished stock room

MODEL	GCM Country Club
Floor Height	12'
Finish Type	Finished divided, 10' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood or metal furring
Flooring	50% carpet and pad, 30% hardwood on sleepers, 20% ceramic or quarry tile
Ceiling	Taped and painted drywall on metal or wood furring
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM Dining/Lounge
Floor Height	10' basement; 12' upper floor

Finish Type	Finished open, 8' ceiling height in basement, 10' ceiling height in upper floors
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Interior Finish and Mechanical Features

Walls	Painted drywall on wood or metal furring
Flooring	75% carpet and pad; 10% parquet with wood sleepers, 15% quarry and/or ceramic tile
Ceiling	Acoustical tile, mineral fiber, including suspension system
Partitions	Wood and masonry interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM Funeral Home
Floor Height	12'
Finish Type	Finished divided, 10' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood furring
Flooring	70% carpet and pad; 30% vinyl
Ceiling	Suspended acoustical tile of mineral fiber
Partitions	Wood frame construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM Health Club
Floor Height	12'
Finish Type	Finished open, 10' ceiling height
Interior Finish and Mechanical Features	
Walls	Taped and painted drywall on metal or wood furring
Flooring	45% carpet and pad; 10% ceramic tile; 5% vinyl tile; 40% unfinished to courts
Ceiling	Suspended acoustical tile, mineral fiber over 60% of the floor area
Partitions	85% wood and 15% masonry interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Packaged air conditioning
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included
Notes	Additives for racquetball and squash courts apply

MODEL	GCM Hotel/Motel Service
Floor Height	12'
Finish Type	Finished divided, 10' ceiling height
Interior Finish and Mechanical Features	
Walls	Painted drywall on metal or wood furring
Flooring	75% carpet and pad; 10% parquet, 15% quarry or ceramic tile
Ceiling	Suspended acoustical tile of mineral fiber
Partitions	Masonry interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air

Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM Hotel/Motel Units
Floor Height	10'
Finish Type	Finished divided, 8' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on metal furring
Flooring	80% carpet and pad; 10% vinyl tile; 10% ceramic tile
Ceiling	Painted drywall on furring
Partitions	20% masonry and 80% wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included
Notes	Plumbing is included by the application of the unit finish adjustment

MODEL	GCM Ice Rink
Floor Height	18'
Finish Type	Semi-finished, 18' floor height

Interior Finish and Mechanical Features

Walls	Painted masonry
Flooring	40% vinyl tile & rubber mat; 20% painted; 40% unfinished
Ceiling	Suspended mineral fiber acoustical tile over 40% of area
Partitions	Masonry partitions typical of occupancy

Lighting	Average cost installation typical of occupancy
HVAC	Heating only
Heating Only	40% forced air, 20% suspended gas fired unit heaters
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM Nursing Home
Floor Height	10'
Finish Type	Finished divided; 8' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood or metal furring
Flooring	50% carpet and pad; 45% vinyl tile; 5% ceramic tile
Ceiling	Painted drywall on ceiling supports
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM General Office
Floor Height	10' basement; 12' upper floors
Finish Type	Finished divided; 8' ceiling height in basement, 10' ceiling height in upper floors

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood or metal furring
Flooring	Basement - vinyl tile. Upper - 95% carpet and pad; 5% ceramic or

	quarry tile
Ceiling	Acoustical tile of organic fiber including suspension system
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM Medical Office
Floor Height	12' first floor; 11' upper floors
Finish Type	Finished divided; 10' ceiling height first floor, 9' ceiling height in upper floors

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood or metal furring
Flooring	95% carpet and pad; 5% ceramic or quarry tile
Ceiling	Acoustical tile, mineral fiber including suspension system
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM Parking Garage
Floor Height	8' basements; 10' upper floors
Finish Type	Unfinished

Interior Finish and Mechanical Features	
Walls	Unfinished
Flooring	Unfinished
Ceiling	Unfinished
Partitions	Masonry interior construction typical of parking structures
Lighting	Average cost flexible conduit, minimal illumination typical of unfinished areas
HVAC	Ventilation only
Heating Only	N/A
Cooling Additive	N/A
Plumbing	Not included
Special Treatment	Type 4 walls applicable to upper floor models consist of 4" concrete panel guard walls 2'6" high
Notes	(1) Stall stripping, curbing, lane markings, arrows and directional signs, ramps and access ways typical of occupancy are included in the model. (2) Sub-basements include an allowance for grade walls excluded from the basement models.

MODEL	GCM General Retail
Floor Height	12' basement; 14' first floor: 12' upper floors
Finish Type	Finished open; 10' ceiling height in basement, 12' ceiling height in first floor: 10' ceiling height in upper floors

Interior Finish and Mechanical Features	
Walls	Taped and painted drywall on metal or wood furring
Flooring	85% of floor area is vinyl tile, 15% unfinished
Ceiling	85% of ceiling area is acoustical tile of mineral fiber including suspension system; 15% unfinished
Partitions	Wood frame interior construction typical of occupancy
Lighting	85% average cost installation typical of occupancy, 15% above average cost installation typical of unfinished areas

HVAC	Packaged units with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included
Notes	15% unfinished stock area

MODEL	GCM Department Store
Floor Height	16' first floor, 14' upper floors
Finish Type	Finished open; 14' ceiling height in first floor, 12' ceiling height in upper floors

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on metal or wood furring; 20% unfinished storage and service area
Flooring	40% vinyl tile, 35% above average cost carpeting, 5% ceramic or quarry tile, 20% unfinished
Ceiling	80% acoustical tile of mineral fiber, including suspension system; 20% unfinished
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included
Notes	20% unfinished storage and service areas

MODEL	GCM Discount Store
Floor Height	14'
Finish Type	Finished open; 12' ceiling height

Interior Finish and Mechanical Features	
Walls	Taped and painted drywall on metal or wood furring; 20% unfinished stock area
Flooring	40% vinyl tile, 40% average cost carpeting; 20% unfinished
Ceiling	80% acoustical tile of mineral fiber including suspension system; 20% unfinished
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of discount stores
HVAC	Packaged heating and cooling system
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included
Notes	20% unfinished storage and service areas

MODEL	GCM Neighborhood Shopping (Strip) Center
Floor Height	14'
Finish Type	Finished open; 12' ceiling height

Interior Finish and Mechanical Features	
Walls	80% taped and painted drywall on furring; 20% two coats masonry paint in stock area
Flooring	40% vinyl tile, 40% average grade carpeting; 20% unfinished
Ceiling	80% acoustical tile of organic fiber including suspension system; 20% unfinished
Partitions	Wood frame interior construction typical of occupancy and exclusive of division walls
Lighting	80% average cost installation typical of neighborhood strip center stores; 20% average cost flexible conduit with minimal fluorescent fixtures typical of unfinished storage areas
HVAC	Packaged heating and cooling system
Heating Only	Forced air

Cooling Additive	N/A
Plumbing	Not included
Notes	20% unfinished stock areas

MODEL	GCM Regional Shopping Center Mall Shops
Floor Height	14'
Finish Type	Finished open; 12' ceiling height

Interior Finish and Mechanical Features

Walls	80% taped and painted drywall on furring; 20% two coats masonry paint in stock area
Flooring	30% vinyl tile, 40% average grade carpeting; and 10% ceramic or quarry tile; 20% unfinished
Ceiling	80% acoustical tile of organic fiber and including suspension system; 20% unfinished
Partitions	Wood frame interior construction typical of occupancy and exclusive of division walls
Lighting	80% average cost installation typical of occupancy; 20% average cost flexible conduit with minimal fluorescent fixtures typical of unfinished storage areas
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included
Notes	20% unfinished stock areas

MODEL	Stand alone basement
Floor Height	9'
Finish Type	Unfinished

Interior Finish and Mechanical Features

Walls	Unfinished
Flooring	Unfinished
Ceiling	Unfinished
Partitions	6" concrete block at 1% density
Lighting	Average cost nonmetallic wiring and minimal illumination typical of unfinished areas
HVAC	Heating only
Heating Only	Space heaters with fan
Cooling Additive	Evaporated coolers
Plumbing	Not included

MODEL	GCM Supermarket
Floor Height	14'
Finish Type	Finished open; 12' ceiling height

Interior Finish and Mechanical Features

Walls	80% taped and painted drywall on furring; 20% two coats masonry paint in stock area
Flooring	60% vinyl tile, balance unfinished to shelving
Ceiling	Acoustical tile of mineral fiber and including suspension system
Partitions	Wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Packaged heating and cooling system
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included
Notes	20% unfinished stock areas

MODEL	GCM Theater
Floor Height	20'
Finish Type	Finished open; 18' ceiling height
Interior Finish and Mechanical Features	
Walls	Taped and painted drywall on furring
Flooring	90% average cost carpet and pad; 10% terrazzo or equal
Ceiling	Suspended acoustical tile of mineral fiber
Partitions	Average cost masonry interior construction typical of motion picture theaters
Lighting	Average cost installation typical of motion picture theaters
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCM Utility Storage
Floor Height	Basement - 9'; First - 14'; Upper Floors - 12'
Finish Type	Unfinished at variable floor heights

Interior Finish and Mechanical Features	
Walls	Unfinished
Flooring	Unfinished
Ceiling	Unfinished
Partitions	6" concrete block at 1% density
Lighting	Average cost nonmetallic wiring and minimal illumination typical of unfinished areas
HVAC	Heating only
Heating Only	Space heaters with fan

Cooling Additive	Evaporated coolers
Plumbing	Not included

General Commercial Industrial Models

This section describes the general commercial industrial models (GCI).

GCI Basic Shell Components

Site Preparation	Typical grading for a level site applicable to the ground floor area; bulk excavation applicable to basement area.
Foundation	Reinforced concrete column footings and grade beams; perimeter insulation.
Frame	
Type-1	Wood and/or timber beams and columns.
Type-2	Steel beams and columns.
Type-3	Reinforced concrete beams and columns.
Type-4	Fire-proofed steel beams and columns.
Exterior Walls	
Type-1 Basement	Reinforced concrete block, waterproofing, insulation at finished areas.
Type-2 Basement	Reinforced concrete, waterproofing, insulation at finished areas.
Type-1 Upper	8" concrete block with painted exterior; Tilt-up panels, 5"- 6", gray; add for each 2" of additional thickness; add for textured finishes.
Type-2 Upper	8" common brick on concrete block back-up.
Type-3 Upper	Aluminum or metal siding on steel framing, insulation.
Ground Floor	Reinforced concrete slab at grade level, vapor barrier.
Structural Floors	
Type-1 Frame	Wood sub-floor on wood joists.
Type-2 Frame	Reinforced concrete on metal deck and steel joists.
Type-3 Frame	Reinforced concrete flat slab and joists.
Type-4 Frame	Reinforced concrete on metal deck and steel joists.
Roof Structure	
Type-1 Frame	Flat roof, wood or composition deck on wood joists.

Type-2 Frame	Flat roof, steel deck on steel joists; open steel frame for low profile gabled roof.
Type-3 Frame	Flat roof, concrete slab on concrete joists.
Type-4 Frame	Flat roof, steel deck on steel joists.
Roofing	Composition roofing, insulation for flat roofs; corrugated aluminum or steel for gabled roofs.
Interior Finish	See occupancy model - specific components
Mechanical Features	See occupancy model - specific components

MODEL	GCI Commercial Garage
Floor Height	14'
Finish Type	Unfinished; 14' floor height

Interior Finish and Mechanical Features

Walls	Unfinished
Flooring	Concrete hardener
Ceiling	Unfinished
Partitions	6" hollow concrete block at a density of 100 square feet of floor per linear foot of partition, hollow metal doors, masonry paint on one side
Lighting	Average cost installation typical of occupancy
HVAC	Gas-fired unit heaters with fan, ventilation with ducts and blowers
Heating Only	Gas-fired unit heaters with fan
Cooling Additive	Evaporative coolers
Plumbing	Bibs and floor drains (1/1000 SF)

MODEL	GCI Hangar
Floor Height	20'
Finish Type	Unfinished; 20' floor height

Interior Finish and Mechanical Features	
Walls	Unfinished
Flooring	Concrete hardener
Ceiling	Unfinished
Partitions	6" hollow concrete block at a density of 100 square feet of floor per linear foot of partition, hollow metal doors, masonry paint on one side
Lighting	Average cost installation typical of occupancy
HVAC	Gas fired unit heaters, ventilation with ducts and blowers
Heating Only	Gas-fired unit heaters with fan
Cooling Additive	Evaporative coolers
Plumbing	Bibs and floor drains (1/3200 SF)

MODEL	GCI Light Manufacturing
Floor Height	Basement - 9', first floor - 14', upper floors - 12'
Finish Type	Semi-finished; variable floor heights

Interior Finish and Mechanical Features	
Walls	Painted interior walls
Flooring	Concrete hardener
Ceiling	Unfinished
Partitions	8" solid concrete block painted both sides with a density of 60 square feet of floor per linear foot of partitioning and including 5% single leaf hollow metal and fire doors
Lighting	Average cost installation typical of occupancy
HVAC	Forced air heating, ventilation with ducts and blowers
Heating Only	Gas-fired forced air
Cooling Additive	Package units, short ducts
Plumbing	Bibs and floor drains (1/3200 SF)

MODEL	GCI Heavy Manufacturing
Floor Height	Basement - 9' high; first floor - 14'; upper floors - 12'
Finish Type	Semi-finished, variable floor heights
Interior Finish and Mechanical Features	
Walls	Painted interior walls
Flooring	Concrete hardener
Ceiling	Unfinished
Partitions	8" solid concrete block painted both sides with a density of 60 square feet of floor per linear foot of partitioning and including 5% single leaf hollow metal and fire doors
Lighting	Average cost installation typical of light manufacturing occupancies
HVAC	Forced air heating, ventilation with ducts and blowers
Heating Only	Gas-fired forced air
Cooling Additive	Package units, short ducts
Plumbing	Bibs and floor drains (1/3200 SF)
Notes	Above average cost foundations, frame and floor and roof structures to support heavy floor load capacity and structural stress

MODEL	GCI Loft Manufacturing
Floor Height	12'
Finish Type	Semi-finished; 12' floor heights
Interior Finish and Mechanical Features	
Walls	2 coats of masonry paint
Flooring	Unfinished
Ceiling	Unfinished
Partitions	8" solid concrete block with one side of masonry paint for a height of 12' and a density of 50 square feet of floor per linear foot of partition
Lighting	Average cost installation typical of lofts

HVAC	Gas-fired unit heaters and ventilation with ducts and blowers
Heating Only	Gas-fired unit heaters with fans
Cooling Additive	Packaged unit, short ducts
Plumbing	Not included
Notes	This model is applicable to multi-story industrial facilities typical of older style load-bearing masonry construction

MODEL	GCI Mill Manufacturing
Floor Height	40'
Finish Type	Semi-finished; 40' floor height

Interior Finish and Mechanical Features

Walls	Painted interior walls
Flooring	Heavy duty concrete hardener
Ceiling	Unfinished
Partitions	8" concrete block painted both sides with a density of 60 square feet of floor per linear foot of partitioning and includes 5% single leaf hollow metal and fire doors
Lighting	Average cost installation typical of heavy manufacturing occupancies
HVAC	Gas-fired forced air, ventilation with ducts and blowers
Heating Only	Gas-fired forced air
Cooling Additive	Package units, short ducts
Plumbing	Bibs and floor drains (1/3200 SF)
Notes	High cost foundation, frame, floor and roof structure to support extra heavy floor load capacity and structural stress.

MODEL	GCI Industrial Office
Floor Height	12'
Finish Type	Finished divided, 10' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on metal or wood furring for a 10' ceiling height
Flooring	65% vinyl tile, 25% carpet and pad, 10% ceramic or quarry tile
Ceiling	Acoustical tile of mineral fiber and including a suspension system
Partitions	Wood frame interior construction typical of finished divided office occupancies
Lighting	Average cost installation typical of divided office areas
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Gas-fired forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCI Power Generating Plant
Floor Height	30' [See note (2)]
Finish Type	Semi-finished, 30' floor height [See note (2)]

Interior Finish and Mechanical Features

Walls	Painted interior walls
Flooring	30% quarry tile, 70% concrete floor hardener
Ceiling	Painted undercoating of floor and roof structures
Partitions	Average cost masonry interior construction typical of heavy manufacturing occupancy
Lighting	Average cost installation typical of heavy manufacturing occupancies
HVAC	Heating only
Heating Only	Forced air

Cooling Additive	Package units, short ducts
Plumbing	Not included
Notes	(1) High cost foundation, frame, floor and roof structure to support heavy floor load capacity and structural stress. (2) Upper floor model does not include exterior walls or interior finish. The upper floor pricing represents the intermediate floor components only. Total building height is calculated using the first floor model and adjusting for height variations from 30 feet.

MODEL	GCI Research and Development
Floor Height	12'
Finish Type	Finished divided, 10' ceiling height
Interior Finish and Mechanical Features	
Walls	Taped and painted drywall on wood or metal furring
Flooring	25% carpet and pad, 10% ceramic and quarry tile, 5% computer flooring, 60% vinyl tile
Ceiling	Acoustical tile of mineral fiber including a suspension system
Partitions	50% masonry and 50% wood frame interior construction typical of laboratories
Lighting	Average cost installation typical of laboratories
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Gas fired forced air
Cooling Additive	N/A
Plumbing	Not included
Notes	This model is applicable to laboratory type research and development facilities

MODEL	GCI Small Shop
Floor Height	First floor - 14', Upper floors - 12'
Finish Type	Semi-finished, variable floor heights
Interior Finish and Mechanical Features	
Walls	Painted interior walls
Flooring	10% vinyl composition tile, 90% concrete hardener
Ceiling	10% suspended acoustical ceiling of mineral fiber, 90% unfinished
Partitions	Low cost wood frame construction for typical occupancy
Lighting	Low cost installation typical of occupancy
HVAC	Heating only
Heating Only	Unit heaters with fan
Cooling Additive	Package unit
Plumbing	Not included
Notes	Model contains 10% finished office area

MODEL	GCI Truck Terminal Bunk Room
Floor Height	9'
Finish Type	Finished open, 8' ceiling height
Interior Finish and Mechanical Features	
Walls	Taped and painted drywall on metal or wood furring
Flooring	Vinyl tile
Ceiling	Taped and painted drywall
Partitions	8" concrete block, painted on two sides for toilet rooms and stairway enclosures
Lighting	Average cost nonmetallic wiring for the average amount of outlets typical of the occupancy
HVAC	Heating only

Heating Only	Gas fired forced air
Cooling Additive	Package unit, short ducts
Plumbing	Not included

MODEL	GCI Truck Terminal Warehouse
Floor Height	14'
Finish Type	Unfinished

Interior Finish and Mechanical Features

Walls	Unfinished
Flooring	10% vinyl tile, 90% floor
Ceiling	Unfinished
Partitions	Average cost wood frame interior construction typical of storage warehousing occupancies
Lighting	Average cost installation typical of transit warehousing occupancies
HVAC	Heating only
Heating Only	Gas fired unit heaters with fans
Cooling Additive	Package unit, short ducts
Plumbing	Not included

MODEL	GCI Light Utility/Storage
Floor Height	Basement - 9'; First floor - 14'; Upper floors - 12'
Finish Type	Unfinished; variable floor heights

Interior Finish and Mechanical Features

Walls	Unfinished
Flooring	Unfinished
Ceiling	Unfinished
Partitions	6" hollow concrete block at a 1% density

Lighting	Average cost, nonmetallic wiring and minimal outlets typical of unfinished areas
HVAC	Heating only
Heating Only	Gas space heaters with fan
Cooling Additive	Evaporative coolers
Plumbing	Not included

MODEL	GCI Heavy Utility/Storage
Floor Height	Basement - 9'; First floor - 14'; Upper floors - 12'
Finish Type	Unfinished, variable floor heights

Interior Finish and Mechanical Features

Walls	Unfinished
Flooring	Unfinished
Ceiling	Unfinished
Partitions	6" hollow concrete block at a 1% density
Lighting	Average cost, nonmetallic wiring and minimal outlets typical of unfinished areas
HVAC	Heating only
Heating Only	Gas space heaters with fan
Cooling Additive	Evaporative coolers
Plumbing	Not included
Notes	Above average cost foundation, frame, floor and roof structure to support heavy floor load capacity and structural stress.

MODEL	GCI Light Warehouse
Floor Height	18'
Finish Type	Unfinished; 18' floor height

Interior Finish and Mechanical Features

Walls	Unfinished
Flooring	Unfinished
Ceiling	Unfinished
Partitions	Wood frame interior construction typical of storage warehouse occupancies
Lighting	Average cost installation typical of storage warehouse occupancies
HVAC	Heating only
Heating Only	Gas-fired unit heaters
Cooling Additive	Package units, short ducts
Plumbing	Not included

MODEL	GCI Loft Warehouse
Floor Height	First floor - 14'; Upper floor - 12'
Finish Type	Semi-finished at variable floor heights

Interior Finish and Mechanical Features

Walls	2 coats of paint
Flooring	Unfinished
Ceiling	Unfinished
Partitions	8" hollow concrete block painted one side with a density of 100 square feet of floor per linear foot of partitioning
Lighting	Low cost installation typical of lofts
HVAC	Heating only
Heating Only	Gas-fired unit heaters with fan
Cooling Additive	Package unit, short ducts
Plumbing	Not included
Notes	This model is applicable to multi-story industrial facilities typical of old style load bearing wall construction

MODEL	GCI Mini Warehouse
Floor Height	12'
Finish Type	Unfinished; 12' floor height
Interior Finish and Mechanical Features	
Walls	Unfinished
Flooring	Unfinished
Ceiling	Unfinished
Partitions	Low cost frame interior construction typical of occupancy
Lighting	Low cost installation typical of occupancy
HVAC	Not included
Heating Only	Not included
Cooling Additive	Not included
Plumbing	Not included
Special Treatment	Heating additive - space heaters @ <u>\$.75</u> per square foot

General Commercial Residential Models

This section describes the general commercial residential models (GCR).

GCR Basic Shell Components

Site Preparation	Typical grading for a level site applicable to the ground floor area; bulk excavation applicable to basement area.
Foundation	
Type-1 Walls	Concrete block grade walls on concrete spread footings; perimeter insulation.
Type-2 Walls	Concrete grade walls on concrete spread footings; perimeter insulation.
Frame (Type-1)	Interior wood framing and roof supports.
Exterior Walls	
Type-1 Basement	Concrete block, waterproofing, insulation at finished areas.
Type-2 Basement	Concrete, waterproofing, insulation at finished areas.
Type-1 Upper	Wood, aluminum or vinyl siding, or stucco on sheathing and load bearing wood stud framing, insulation.
Type-2 Upper	Brick veneer on wood sheathing and load bearing wood stud framing, insulation
Ground Floor	Concrete slab with wire mesh reinforcing at grade level, vapor barrier.
Structural Floors	Wood sub-floor on wood joists.
Roof Structure	Gabled type roof at a 4/12 pitch, wood or composition deck on wood joists
Roofing	Composition shingle roofing, insulation
Interior Finish	See occupancy model - specific components
Mechanical Features	See occupancy model - specific components

MODEL	GCR Apartment
Floor Height	9'
Finish Type	Finished divided, 8' ceiling heights
Interior Finish and Mechanical Features	
Walls	Painted drywall on wood furring
Flooring	85% carpet and pad; 15% vinyl composition tile
Ceiling	Taped and painted drywall on ceiling supports
Partitions	Frame interior construction typical of occupancy
Lighting	Low to average cost installation typical of occupancy
HVAC	Forced air heating only
Heating Only	Forced air
Cooling Additive	Add for air conditioning for one unit from Schedule C "Add for A. C." column. Air conditioning for multiple units is valued using the unit finish adjustment.
Plumbing	Not included, plumbing is valued with the application of the unit finish adjustment
Notes	Kitchen build-ins, plumbing specifications of a 3-fixture bathroom with shower tub, kitchen sink, hot water supply per living unit, and air conditioning, if applicable, are included by the application of the unit finish adjustment

MODEL	GCR Dining/ Lounge
Floor Height	Basement - 9'; upper floors - 12'
Finish Type	Finished open, 8' ceiling height in basement, 10' in upper floors
Interior Finish and Mechanical Features	
Walls	Painted drywall on wood furring
Flooring	75% carpet and pad; 10% parquet, 15% quarry or ceramic tile
Ceiling	Acoustical tile of organic fiber on furring for basement finish, suspended mineral fiber acoustical tile in upper floors

Partitions	Low cost wood frame interior construction typical of table service restaurants
Lighting	Average cost installation typical of table service restaurants
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Gas fired forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCR Funeral Home
Floor Height	12'
Finish Type	Finished divided, 10' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on metal furring
Flooring	90% carpet and pad; 10% vinyl tile
Ceiling	Acoustic tile, mineral fiber, including suspension system
Partitions	Average cost wood frame interior construction typical of mortuaries
Lighting	Average cost installation typical of mortuaries
HVAC	Heat pump system with warm and cool air
Heating Only	Gas fired forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCR Motel Service
Floor Height	Basement - 9'; upper - 12'
Finish Type	Finished open, 8' ceiling height in basement, 10' in upper floors

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood furring
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Flooring	Basement and first floor - 85% carpet and pad; 10% vinyl tile; 5% quarry or ceramic tile Upper floor – 85% carpet and pad; 15% vinyl tile
Ceiling	Taped and painted gypsum board on metal furring for basement and upper finish, suspended mineral fiber acoustical tile for first floor
Partitions	Low cost wood frame interior construction typical of table service restaurants
Lighting	Average cost installation typical of table service restaurants
HVAC	Zoned air conditioning with warm and cool air
Heating Only	Gas fired forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCR Motel Units
Floor Height	9'
Finish Type	Finished divided, 8' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood furring
Flooring	85% carpet and pad; 15% vinyl tile
Ceiling	Taped and painted gypsum board on wood furring
Partitions	Taped and painted drywall and sound deadening board on wood studs
Lighting	Average cost installation typical of occupancy
HVAC	Through-the-wall electric heating and cooling units with fan
Heating Only	Electric wall units
Cooling Additive	N/A
Plumbing	Not included, plumbing is valued with the application of the unit finish adjustment

MODEL	GCR Nursing Home
Floor Height	10'
Finish Type	Finished divided, 8' ceiling heights

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood furring
Flooring	50% carpet and pad; 45% vinyl tile; 5% ceramic tile or equal
Ceiling	Painted gypsum board on metal furring
Partitions	Taped and painted drywall on wood studs
Lighting	Average cost installation typical of group care facilities
HVAC	Zoned air conditioning with warm and cooled air
Heating Only	Gas fired forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCR Utility Storage Basement
Floor Height	9'
Finish Type	Unfinished

Interior Finish and Mechanical Features

Walls	Unfinished
Flooring	Unfinished
Ceiling	Unfinished
Partitions	Concrete block at a 1% density
Lighting	Average cost, nonmetallic wiring and incandescent fixtures, minimal illumination typical of unfinished areas
HVAC	Heating only

Heating Only	Space heaters with fan
Cooling Additive	Evaporated coolers
Plumbing	Not included

MODEL	GCR General Office
Floor Height	Basement - 9'; Upper floor - 10'
Finish Type	Finished divided, 8' ceiling heights

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood furring
Flooring	95% carpet and pad, 5% ceramic or quarry tile
Ceiling	Acoustical tile of mineral fiber, including suspension system in upper floors
Partitions	Low cost wood framed interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Heat pump system with warm and cooled air
Heating Only	Gas fired forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCR Medical Office
Floor Height	10'
Finish Type	Finished divided, 8' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood furring
Flooring	95% carpet and pad, 5% ceramic or quarry tile
Ceiling	Acoustical tile of mineral fiber, including suspension system in upper floors
Partitions	Wood frame interior construction typical of occupancy

Lighting	Average cost installation typical of occupancy
HVAC	Heat pump system with warm and cooled air
Heating Only	Gas fired forced air
Cooling Additive	N/A
Plumbing	Not included

MODEL	GCR Bank
Floor Height	10'
Finish Type	Finished divided, 8' ceiling height

Interior Finish and Mechanical Features

Walls	Taped and painted drywall on wood furring
Flooring	95% carpet and pad, 5% ceramic or quarry tile
Ceiling	Acoustical tile of organic fiber, including suspension system
Partitions	Average cost wood frame interior construction typical of occupancy
Lighting	Average cost installation typical of occupancy
HVAC	Heat pump system with warm and cooled air
Heating Only	Gas fired forced air
Cooling Additive	N/A
Plumbing	Not included

General Commercial Kit Models

This section describes the general commercial kit models (GCK).

Model: GCK---- General Commercial Kit

Foundation	
Pole frame	Wood poles or posts embedded in the ground
Steel frame	Reinforced concrete column footings under each column in rigid steel frame construction and each post in post and beam construction
Frame	
Pole frame	Wood treated poles or posts on 8' to 10' centers around the perimeter of the structure with wood rafters, wood girts, and wood purlins
Steel frame	Steel tapered plate columns or post and beam construction with a maximum total roof load weight of 30 pounds. The structure contains light steel beams, steel girts, and steel purlins (See definitions at bottom of model)
Exterior	
Walls	Light steel of 26 to 28 gauge thickness or wood siding on wood or steel girts for a wall height of 12 feet. Add for exterior sheathing, insulation, light aluminum siding, interior liner, heavy gauge siding, plastic panel siding, and sandwich paneling
Openings	1% walk-in doors and 4% overhead doors
Roof	Light steel roofing on wood or steel purlins. Add for insulation, light aluminum roofing, interior liner, heavy gauge roofing, and sandwich paneling
Unfinished interior	
Partitioning	Frame partitions for a height of 12'
Lighting	Low concentration of fixtures, receptacle, switches, and service
Heating	Gas fired units or radiant heaters
AC Add	Evaporative coolers
Semi-finished interior	
Flooring	Hardener and sealer
Ceiling	10% acoustical ceilings, tile, or panels, including suspension system and 90% painted

Partitioning	Frame partitions for a height of 12’
Lighting	High concentration of fixtures, receptacle, switches, and service
Heating	Gas fired forced air system
AC Add	Evaporative coolers

Finished open interior

Walls	Taped drywall on metal furring with 2 coats of paint
Flooring	85% of floor area is 90% vinyl tile and 10% carpet and 15% of the floor is unfinished
Ceiling	85% of floor area is acoustical tile constructed of mineral fiber and supported throughout by a suspension system
Partitioning	Frame partitions with a wall height of 12’ typically found in finished open interiors
Lighting	Typical fixtures, receptacle, switches, and service found in open interiors
Heating	Gas fired forced air system
AC Add	Air conditioning through force air system

Finished divided interior

Walls	Taped drywall on metal furring with 2 coats of paint
Flooring	95% of floor area is carpet and pad, and 5% is unfinished
Ceiling	100% of floor area is acoustical tile constructed of mineral fiber and supported throughout by a suspension system
Partitioning	Frame partitions with a wall height of 12’ typically found in finished divided interiors
Lighting	Typical fixtures, receptacle, switches, and service found in finished divided interiors
Heating	Gas fired forced air system
AC Add	Air conditioning through force air system

GCK Steel Frame Terms:

Total roof load: The sum of the roof *snow load* or *live load* (whichever is greater) and the *collateral load*.

Collateral load: The dead load induced by stationary hanging loads such as drop ceilings, sprinklers, mechanical systems, electrical equipment, etc.

Snow load: The load induced by snow collecting on the roof.

Live load: The load induced during maintenance by workers, equipment, or materials.